GASTROINTESTINAL DISEASE

Infection Control Guidelines for Long-Term Care Facilities

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Division of Epidemiology and Immunization
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The elderly (≥65 years of age) are more susceptible to morbidity and mortality from gastrointestinal infection than younger individuals. This population is at increased risk of infectious gastroenteritis due to the age-related decrease of gastric acid as well as a higher prevalence of incontinence (where the risk of cross-contamination is substantial). Therefore, it is important to try to prevent gastrointestinal disease outbreaks by implementing appropriate food handling procedures, in addition to hand hygiene and glove use when handling contaminated linens and patient excreta.

Infection with a gastrointestinal disease is not grounds for denial of admission to a long-term care facility. In 1989, 105 CMR 150.000: The Rules and Regulations for the Licensing of Long-Term Care Facilities were amended. Section 105 CMR 150.003(D)(1)-(3)(a-d), the section that allowed long-term care facilities to restrict admission to persons who had a "contagious disease in a communicable form . . . ", was **deleted in its entirety**.

Infectious Agents: There are many enteric pathogens that may be implicated, including *Campylobacter*, *Cryptosporidium*, *Cyclospora*, *Entamoeba histolytica*, *E. coli* O157:H7, *Giardia*, *Listeria monocytogenes*, Norwalk-like virus, *Salmonella*, and *Shigella*.

Reservoirs: Variable, depending upon what agent is involved; may include humans, animals, water, or soil.

Modes of Transmission: Variable, depending upon what agent is involved; may include fecal-oral, foodborne, waterborne, or mother-to-fetus transmission.

Incubation Periods: Variable, depending upon what agent is involved.

Campylobacter	1-10 days	*Giardia*	7-10 days
Cryptosporidium	1-12 days	*L. monocytogenes*	3-70 days
Cyclospora	1-14 days	Norwalk-like virus	16-72 hours
E. histolytica	2-4 weeks	*Salmonella*	6-72 hours
E. coli O157:H7	3-8 days	*Shigella*	12-96 hours

Diagnosis: Stool specimens can be tested for presence of any of the above enteric pathogens, with the exception of *Listeria monocytogenes*. *L. monocytogenes* can be isolated from a variety of sterile sites, including cerebrospinal fluid and blood, as well as joint, pleural, and pericardial fluid. The State Laboratory Institute does not test stool for virus. Arrangements can be made on a case-by-case basis to send stool specimens to the CDC for viral isolation in certain outbreak situations.

Treatment: Issues relating to the treatment of gastrointestinal illness, including the use of antibiotics, should be addressed by the patient's clinician.

Control: If more than one case of enteric illness (vomiting and/or diarrhea) occurs in any long-term care facility within a limited time period, the patients' health care providers should be notified and stool cultures ordered as soon as possible. In isolated cases, the individual's health care provider will decide whether or not stool cultures are indicated. If multiple cases occur in a limited time period (even if an agent is not known), or if a single case of a reportable disease occurs, the local board of health should be notified.

During a suspected outbreak, the Massachusetts Department of Public Health (Division of Health Care Quality [617] 753-8000 and Division of Epidemiology and Immunization [617] 983-6800) should be notified in addition to the local board of health to assist in the management of the outbreak.

It is important to actively identify new cases of enteric illness. This includes a daily symptom review and temperature checks on each patient in the unit(s) affected, chart reviews, and interviews with staff. During a suspected outbreak, include all individuals with loose bowel movements (even if, on occasion, this normally occurs), and individuals with elevated temperatures that may appear to be due to different causes (e.g., URIs, UTIs).

Conduct an epidemiological investigation to the best of your ability. Focus on collecting the following information to create a line listing of ill patients and staff:

a. age, sex, and ethnicity of cases
b. symptoms of cases
c. date and time of onset of symptoms
d. duration of symptoms
e. what foods were consumed in the 72 hours (or other appropriate time frame) prior to onset of symptoms

In addition, try to determine if a common meal was involved. If food is suspected as a possible cause of the illness, it is also important to interview and obtain food histories from individuals who did not get sick. Depending on the extent of the outbreak, a stool survey might be considered. Options include testing:

a. all patients and staff,
b. all patients and staff on affected units, or
c. all patients, direct-care staff, and food-handling staff, whether symptomatic or not.

Other Control Measures:

1. **Cohorting of patients with diagnosed disease is essential.** Patients with suspected illness (before culture results) should also be cohorted. Individual staff should be restricted to caring for **only one cohort** of patients. Staff should **not** be floated.

2. **Patients with gastrointestinal symptoms should be placed on standard plus contact precautions** for the duration of their illness. If cultures were taken and the patients were treated with antibiotics, they should remain on precautions until a negative stool culture is obtained. The culture should be taken at least 48 hours after cessation of antibiotic therapy. In addition, proper hand hygiene should be emphasized to all staff and residents.

3. Articles contaminated with infective material, such as soiled linens and clothing, should be discarded or bagged and labeled before being sent for decontamination.

4. During a suspected outbreak, the facility should be closed to new admissions. Also, family members and visitors should be notified of the outbreak.

5. In the event of a foodborne outbreak, you may consider restricting foods being brought into the facility by visitors until the source of the outbreak is known.

For further information, contact the Division of Epidemiology and Immunization at (617) 983-6800.

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